

# Kexun Niu

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## Skills

- **Programming Languages:** Python, JavaScript, Typescript, Java, C#, SQL
- **Frameworks:** Django RESTful Framework, React, Basic Angular, Node.js, Express.js, Spring Boot
- **Databases:** PostgreSQL, SQLite, MongoDB
- **Testings:** Unit, Integration
- **Tools:** Postman, Bootstrap, Git Version Control, Docker, Kubernetes, AWS EC2, GCP
- **Soft Skills:** Communication, Collaboration, Self-driven

## Education

<b>Master of Engineering in Software Engineering</b> Western University, London, Ontario	Sept 2023 – June 2024
<b>Bachelor of Science in Computer Science</b> University of Alberta, Edmonton, Alberta	Sept 2019 – June 2023

## Practical Experience

<b>Pathfinder - Build Career Pathways Tools</b> Skillcity Institute – Edmonton, AB	Jan 2023 – Apr 2023
A platform would help young people build their career pathways for the future.	
<ul style="list-style-type: none"><li>• Took over a pre-existing codebase, refactoring key modules to support new features like Job Application and Job Activity views, reducing API response time by <b>60%</b>.</li><li>• Developed comprehensive Django unit tests for existing and new endpoints, achieving <b>95% code coverage</b>.</li><li>• Set up a GitHub Actions CI/CD pipeline and deployed the web application using Docker.</li><li>• Managed <b>Agile</b> processes, including backlog refinement and sprint planning using GitHub Project Tool and Mkdocs, contributing <b>40%</b> to the project's completion.</li><li>• Created UML and Sequence Diagrams by LucidChart to map key workflows, estimated the velocity for each tasks and improving developer onboarding efficiency by <b>20%</b>.</li><li>• <b>Tech:</b> Python, Django RESTful framework, Django Unit Test, Docker</li></ul>	Sep 2022 - Dec 2022

## Projects

<b>Social Distribution - Social Media Platform</b>	Sep 2022 - Dec 2022
<ul style="list-style-type: none"><li>• Optimized ORM queries and introduced pagination, reducing API response times by <b>40%</b>.</li><li>• Implemented <b>JWT-based authentication</b> and token refresh to fix session expiry issues, enhancing security and user experience.</li><li>• Collaborated with cross-functional teams to establish seamless API integrations, improving data synchronization stability and reducing fetch errors by <b>75%</b>.</li><li>• Redesigned the user authentication flow and refined the UI using Bootstrap, conducting <b>multi-user testing</b> for improved usability.</li><li>• <b>Tech:</b> Python, Django, Django RESTful Framework, Bootstrap, JWT, Unit Test</li></ul>	Sep 2023 - Dec 2023
<b>Online Bookstore &amp; Server-End - Online E-book Retailer</b>	
<ul style="list-style-type: none"><li>• Designed a card-based layout for book listings, improving user navigation and browsing experience.</li><li>• Developed token refresh mechanisms to handle JWT expiration and added third-party authentication for seamless login.</li><li>• Enhanced CRUD operations to process bulk updates for <b>700 users in under 10 seconds</b>, improved system reliability.</li><li>• Implemented fuzzy search algorithms for Google Book API, increasing search accuracy by <b>70%</b> for partial title matches.</li><li>• Utilized Git for effective version management, implementing branching strategies to resolve merge conflicts and streamline collaboration within the development team.</li><li>• Tools Used: JavaScript, React, Bootstrap, Node.js, Express.js, Passport.js</li></ul>	Sep 2023 - Dec 2023